

Autoconer X5

Rewinding technology

Wind and win!



Wind and Win!

Best technology for best results



Established competence with worldwide reputation

Since 1962, Autoconer package technology is considered a synonym for market leadership in package winding machines. The current Autoconer X5 series technology combines the decades of know-how acquired by Oerlikon Schlafhorst, the inventor of the automatic package winding machine.

Benefits from innovation

The Autoconer X5 with PreciFX offers the most innovative digital yarn displacement technology. Take advantage of a comprehensive range of features for individual and process-optimised control of density of wind, package diameter and format. PreciFX allows a significantly higher productivity – not only in winding but also in downstream processing by saving process steps.

Five good reasons for your success.

Each Autoconer X5 rewinding machine contains the experience and expertise gathered by Oerlikon Schlafhorst. We know the important factors in today's business and have included them in each Autoconer X5: quality, automation, flexibility, productivity and reliability.

The range of the Autoconer X5 rewinding machine offers the right machine for every requirement – from simple to conveniently automated, with drum winding or PreciFX, with all modules of the successful FX series. Of course, this includes advice, know-how and service that only Oerlikon Schlafhorst offers. Do good business – with the Autoconer X5!



1 Applications

Quality that pays off



5 Confidence

Secure the future with Oerlikon Schlafhorst



4 Productivity

Cost-effective processes



2 Automation

Intelligent control and automation



3 Flexibility

Individual configuration of functions

Wind and win!

Autoconer X5 rewinding machines –
the right equipment for every requirement

S



Autoconer X5 S

Drum	–
PreciFX (Start)	●
PreciFX (Plus, Expert)	○
Clearer	–
Splicer	–
Package doffer	–
Packaging feed	manual, simple

- > Rewinding without yarn clearing
- > PreciFX displacement technology
- > Simple manual feed
- > No automation

E



Autoconer X5 E

Drum	●
PreciFX	○
Clearer	●
Splicer	●
Package doffer	○
Packaging feed	manual, simple

- > Rewinding with yarn clearer
- > Drum or PreciFX yarn displacement technology
- > Simple manual feed

K



Autoconer X5 K

Drum	●
PreciFX	○
Clearer	●
Splicer	●
Package doffer	○
Packaging feed	manual, convenient

- > Rewinding with yarn clearer
- > Drum or PreciFX displacement technology
- > Convenient manual feed with automatic change of reserve package

RC



Autoconer X5 RC

Drum	●
PreciFX	○
Clearer	●
Splicer	●
Package doffer	○
Packaging feed	Circular magazine

- > Rewinding of residual packages
- > Drum or PreciFX yarn displacement technology
- > Manual feed with circular magazine

Autoconer X5 rewinding technology

Wind and win!



1 Quality that pays off

Drum or PreciFX displacement technology
PreciFX: Services and packages
Autoconer X5: Advantages for all downstream processes
Dye packages for dyeing
Hard packages for weaving preparation and weaving
Hard packages for knitting

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2 Intelligent control and automation

Operating concept
Automation overview
Package doffer X-Change
Automatic yarn clearing
Modular splicing and knotting technology

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3 Individual configuration of functions

Flexible machine concept Autoconer X5
Individual selection and combination of degree of automation
Technology with future

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4 Cost-effective processes

Economical production
Higher productivity in downstream processing
Resource-conserving machine concept

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5 Secure the future with Oerlikon Schlafhorst

World market leader Oerlikon Schlafhorst
Success in series since 1962
Comprehensive solutions for increased efficiency

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Technical details

The Autoconer X5 winding unit
Machine concept
Equipment options
Drawings and dimensions

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1 Quality that pays off

Choose Autoconer X5 drum winding, the approved standard for package quality ...

The Autoconer X5 offers a large freedom of displacement - can also be combined in sections

Only the Autoconer X5 offers a choice of two winding technologies with four types of yarn displacement. Select between drum winding and software-controlled yarn displacement PreciFX – can also be combined in sections. You can upgrade from drum to PreciFX at any time and integrate additional PreciFX options. (Drum winding not available for type S)

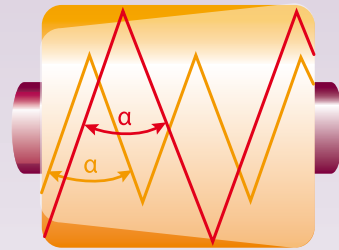
FX technologies create quality packages for numerous applications

The Autoconer X5 drum winding has established itself worldwide as quality standard for hard and dye packages. With the unsurpassed technology modules of the FX series for yarn tension control, anti-patterning, flank accuracy and precision length measuring, top quality winding results can be achieved already with random wind of the Autoconer X5 drum winding.

PreciFX – individual, flexible package design

Thanks to software-controlled yarn displacement, PreciFX offers even more options to accurately adjust package format, package structure and package design to the requirements of downstream processing in a completely individual and flexible way, without compromises.

Autoconer X5 drum winding



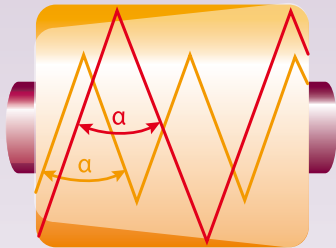
Drum: random wind

- Constant crossing angle
- Decreasing winding ratio with increasing diameter
- Stable package format
- Breaking up critical pattern zones with Propack FX
- No bulging out of the yarn on the package flanks with Variopack FX



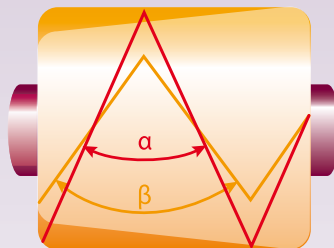
... or profit from PreciFX, the highest performance digital yarn displacement technology.
Or use both!

Autoconer X5 with PreciFX



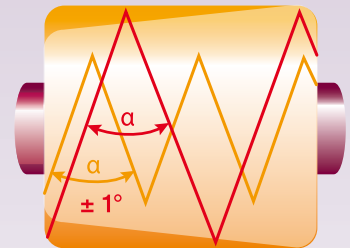
PreciFX:
Precise random wind

- Constant crossing angle
- Decreasing winding ratio with increasing diameter
- Stable package format
- No pattern zones
- No bulging package flanks
- Anti-latching
- Flexible adjustment of groove turns / crossing angle



PreciFX:
Precision winding

- Decreasing crossing angle with increasing diameter
- Constant winding ratio
- Defined constant yarn distance
- No pattern zones



PreciFX:
Step-precision winding

- Almost constant crossing angle
- Gradual constant winding ratio
- Defined yarn distance
- Stable package format
- Uniform density
- No pattern zones



PreciFX packages: Perfection with just a few clicks



PreciFX gives you the freedom of choice

Reduce set-up times, accelerate production: With the Autoconer X5 and PreciFX you always wind exactly the package you need. Best possible quality and productivity for each desired downstream processing.

At the touch of a button you control the package formats and characteristics and change the package parameters, e.g. number of pitches or crossing angle within a short time. Simply click on Informator. For you this means: No more compromises!

PreciFX Start



All formats – cylindrical and conical
6", conicity up to 5°57'



Absolutely pattern-free
Pattern zones are a thing of the past



Select number of pitches
from 1,5 to 3 gg



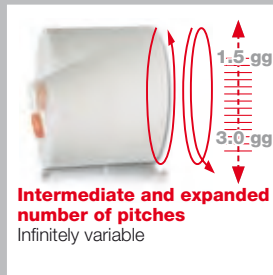
Soft, customisable flanks
Uniform density all the way to package flank

When is PreciFX Start right?

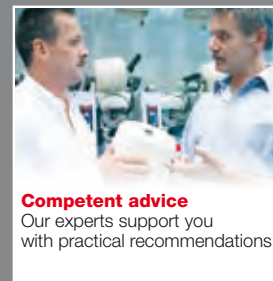
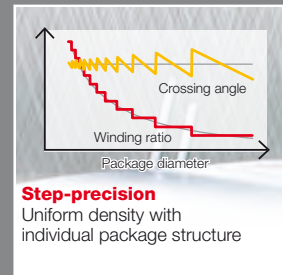
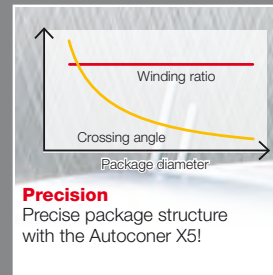
- For the production of optimally adapted packages for dyeing, knitting, weaving preparation and weaving
- When you want to increase package quality by keeping it absolutely pattern-free
- When you want to meet downstream processing demands in a flexible and quick way, without drum change.

PreciFX Plus

PreciFX Plus has all the features of PreciFX Start, plus:



PreciFX Expert has all the features of PreciFX Plus, and:



When is PreciFX Plus right?

- For the production of further optimised packages for dyeing, knitting, weaving preparation and weaving with increased flexibility
- For vertically integrated operators who can optimise and shorten process sequences with adapted package design
- When you want to use the central setting for winding parameters, including central contact pressure setting
- For specialised downstream processing with high package technology know-how and special applications such as S-twisted yarns

When is PreciFX Expert right?

- For users that want to take advantage of the precision and step-precision winding
- To optimise process sequences, for instance by supplying dye packages in any desired displacement technology.
- For users with the best package technology know-how - for individual package engineering and top flexibility
- For vertically integrated operators wishing to optimise their process sequences – for efficiency and economy all the way to downstream processing

1 Quality that pays off

This package offers you a lot more

More quality, more efficiency

This Autoconer X5 rewinding technology makes it easy for you to comply with all conceivable requirements on process optimised quality packages. Better adaptation to the subsequent process means safer and more economical downstream processing, all the way to cutting down on process steps. We call this: Quality that pays off.

DYE HOUSE



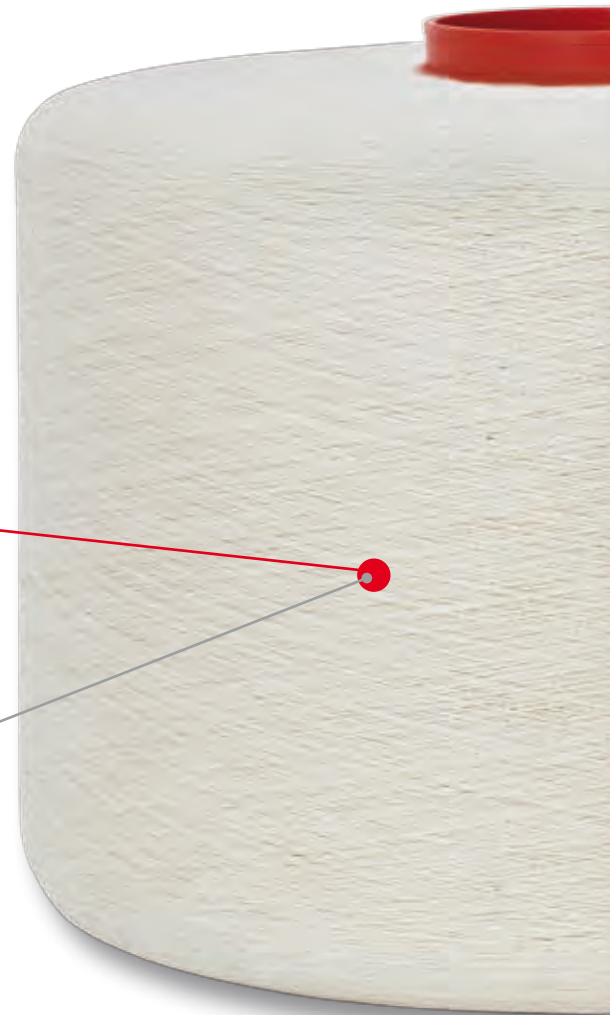
Autoconer X5 process advantages

- > Accurate density thanks to yarn tension control Autotense FX
- > Breaking up critical pattern zones with Propack FX (when using drum winding)
- > Central setting of winding parameters

PreciFX plus points

- Precise random wind, precision winding / step-precision winding
- Round flanks
- Soft flanks
- Specifically adaptable package density
- Individual selection of stroke width
- Central setting of precise contact pressure
- Productivity potentials during winding
- Maximum unwinding security

PreciFX



WARPING, WEAVING

Autoconer X5 process advantages

- > Large diameters and high package densities
- > Outstanding unwinding properties
- > Excellent spliced joints
- > Exactly wound yarn lengths with high-precision length measuring system Ecopack FX

PreciFX plus points

PreciFX

- Precise random wind, precision winding / step-precision winding
- Individual package design
- Maximisation of package densities
- Anti-latching for unwinding without entanglements
- Individual flank configuration for reduced load on the yarn

KNITTING

Autoconer X5 process advantages

- > Standard conicities up to 5°57'
- > Large package format
- > Material-adapted constant waxing with Autotense FX

PreciFX plus points

PreciFX

- Precise random wind, precision winding / step-precision winding
- Optimisation of package density
- Infinite format variations
- S-twisted yarn packages without hardware conversion, with improved unwinding properties
- Individual package design

Reproducible package quality

All lot data, machine parameters and winding parameters for up to 30 lots are stored in the Informator and can be transferred via USB stick. Your advantage: immediate access, quick set-up, quality-assured production.

Autoconer X5 dye packages: Quality dyeing for numerous applications

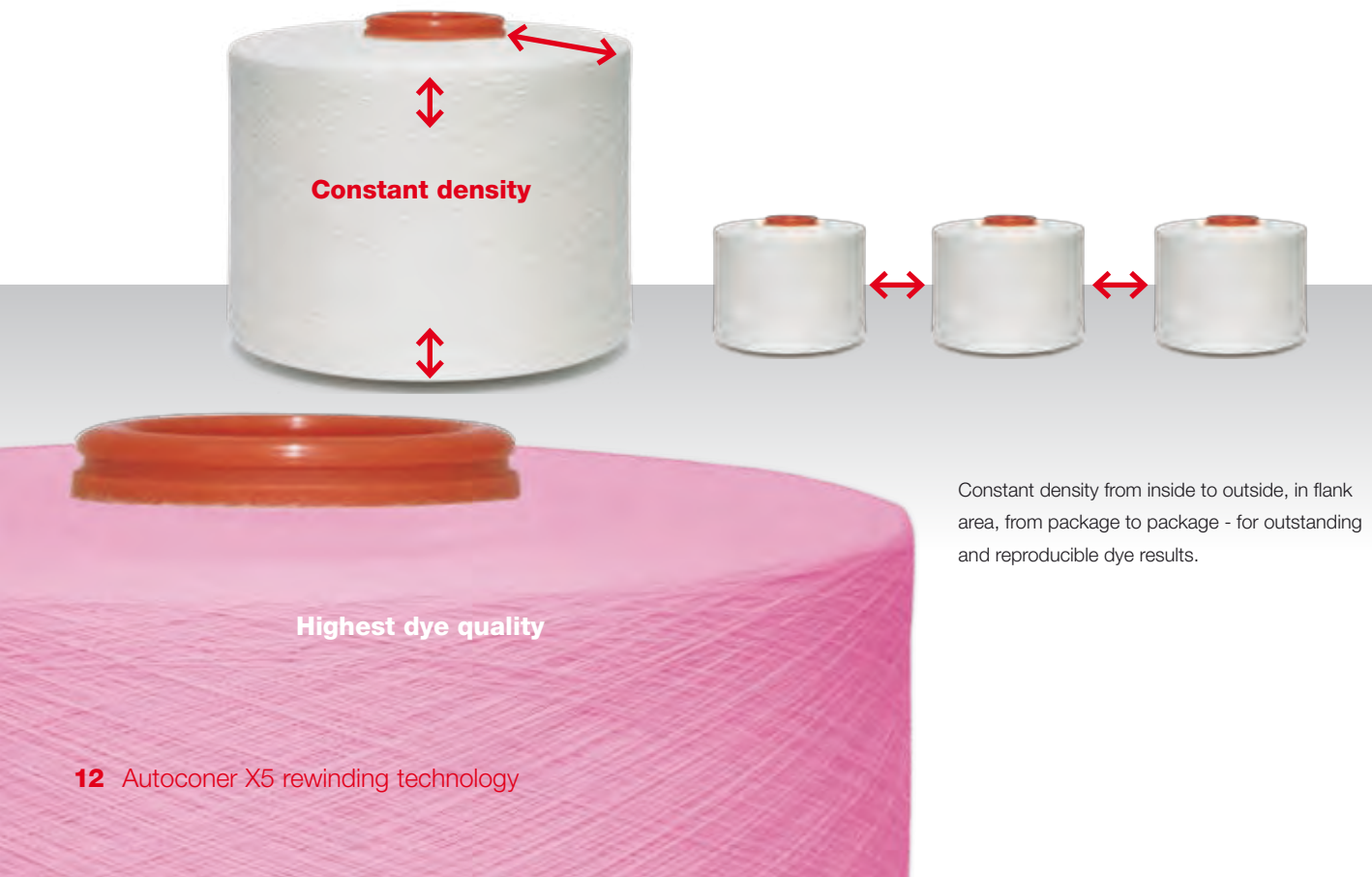
DYE HOUSE

Autoconer X5 process advantages

- > Accurate density thanks to yarn tension control Autotense FX - down to the cN
- > Breaking up critical pattern zones via electronic anti-patterning system Propack FX (only required for drum winding)
- > Central setting of winding parameters for reproducibility and highest uniformity of quality characteristics from package to package

The sought-after quality standard for dye houses

- For decades the Autoconer has been the synonym for quality dye packages with random wind that comply with the high requirements placed on an efficient dyeing process. The Autoconer winding technology allows you to create dye packages at highest productivity and quality characteristics that can be reproduced at any time:
- extremely uniform, specifically adapted package density, at highest consistency
 - from inside to outside (yarn tension control Autotense FX)
 - in flank area (mechanical offset)
 - from package to package (central setting of parameters at Informator)
 - cylindrical package format (drum 2 gg, symm.)
 - breaking up critical pattern zones (Propack FX)





Constant yarn tension in cN with Autotense FX for accurate package density

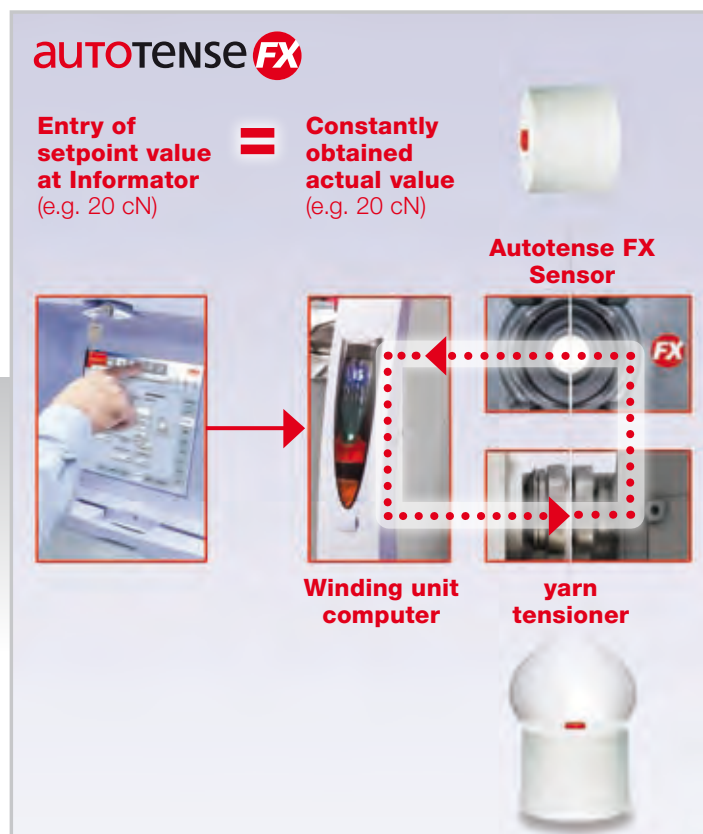
Set the required yarn tension for your desired package density centrally at the Informator, exactly in cN. This value is accurately maintained at each winding unit. Autotense FX performs continuous online measurement of the actual yarn tension via a sensor and makes readjustments with the yarn tensioner within split seconds.

Breaking up critical pattern zones: Drum winding with Propack FX

Propack FX prevents critical pattern zones at their root. The system compares the speeds of the drum and package online and simulates a variation in diameter in the critical phases. Thus, it produces dye packages without pattern zones and with excellent dye and unwinding behaviour. The diameters of your packages are also no longer restricted by potential pattern zones.

Straight flanks when using elastic yarn: Drum winding with Variopack FX

When processing elastic yarns Variopack FX prevents bulging out of the yarn on the package flanks and ensures a stable package format even with large diameters.



Precision dye packages with PreciFX: perfectly adapted for efficient processes

DYE HOUSE

PreciFX plus points



- Pattern-free, precise random wind, precision winding / step-precision winding
- Round flanks
- Soft flanks, for individual and flexible design
- Specifically adaptable package density
- Individual choice of stroke width, suitable for each dye tube structure
- Central, accurate contact pressure setting for reproducible package density
- Productivity potentials during winding thanks to individual parameter selection
- Maximum unwinding security
- Process advantages due to special protective winding

PreciFX means process optimisation at a click

Each process and each dyeing installation is individual. PreciFX allows you to produce dye packages that are ideal for the requirements of your process chain. The inner structure as well as the outer form of your dye package are adjusted to the requirements of downstream processing simply by a click.

Soft flanks for absolutely uniform dyeing

PreciFX eliminates the exact, very restricted package flank. The software controlled yarn displacement with traverse flexibility allows you to vary the softness of the flank area, resulting in a uniform value of the package density over the entire package width. This ensures a uniform flow of the dye liquid.

Round flanks eliminate a process step

PreciFX allows you to directly wind dye packages with round flanks. The otherwise frequently required mechanical edging can be eliminated as additional process step, the excellent package structure is maintained.



Uniform density over the entire package width



Design flanks according to your specifications



Constant hole structure with precision and step-precision winding

Precision and step-precision winding enables you to design a very uniform hole structure during package build: Simply by selecting the crossing angle, yarn distance and winding ratio. With PreciFX the crossing angle can be set within a wider range, thus very soft packages can be produced.

Increased quality and efficiency thanks to special protective winding

The protective winding provided by PreciFX is of particular advantage. In the process, the first yarn layers are firmly wound onto the empty tube. This results in a filter effect during dyeing that prevents undissolved paint particles, etc. from entering the package structure. For certain applications, you do not need to mount and dismount a web covering. You save time and money, plus improve dye quality.

Individual stroke width

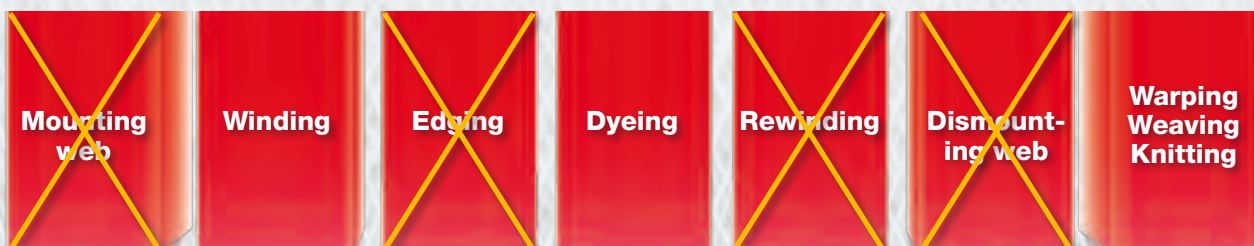
Thanks to software-controlled yarn placing, all dye tubes with different hole structure and hole arrangement are optimally wound to cover all holes. There are no uncontrolled flows generated during dyeing.

Central setting of precise contact pressure

The central setting of the contact pressure ensures highest precision of package density from package to package, exactly reproducible at all times.

Maximising productivity

The more flexible combination of winding parameters and larger "number of pitches" helps you to achieve increased productivity.



With PreciFX you can save process steps such as, for instance, rewinding after dyeing thanks to the good unwinding behaviour of PreciFX dye packages.

Hard packages for warping and weaving: more yarn, more reliability

WARPING, WEAVING

Autoconer X5 process advantages

- > Large diameters and high package densities save process and transport costs
- > Reliable unwinding properties with Oerlikon Schlafhorst FX technologies
- > Process-reliable spliced joints
- > Exactly wound yarn lengths with Ecopack FX conserve yarn resources

Package quality determines efficiency

Hard packages for warping and weaving are exposed to enormous loads. With FX technology modules from Oerlikon Schlafhorst you can create process-optimised, high-quality hard packages that offer convincing unwinding reliability at high take-up speeds and constant strong load change.

- Maximum unwinding stability by breaking up critical pattern zones, precise package build and excellent spliced joints
- Large diameter, conical package format
- High package density, accurately measured lengths

Ecopack FX: Reducing safety yarn lengths

In warping and sectional warping, each extra or lacking meter of wound yarn can result in several hundred of metres yarn waste. The optical precision length measuring system Ecopack FX helps you achieve length deviations below one percent. This allows you to reduce your safety lengths and save valuable yarn resources.



Autoconer X5 quality packages exhibit optimal unwinding properties. This is ensured by uniform package build resulting from constant yarn tension, without interfering pattern zones. Diameters up to 320 mm are possible.



Process-reliable spliced joints for first-class optical woven goods

The excellent spliced joints, virtually indistinguishable from the parent yarn, are another important performance feature of the Autoconer X5 packages for warping and weaving. They exhibit excellent resistance against high cyclic loads and win over by first-class appearance. A knotter unit can be supplied as well, on an individual basis.

Uninterrupted package change with X-Change

When changing the finished package with the automatic package doffer X-Change, a transfer tail is wound onto the empty tube. For downstream processing connect the transfer tail to the yarn end of the next package to ensure that both unwind in a successive uninterrupted manner without manual interference.



Convenient module system for material-adapted splicing.



The transfer tail allows continuous unwinding during downstream processing.

PreciFX plus points

PRECIFX

- Pattern-free, precise random wind, precision and step-precision winding
- Individual package design for large and biconical packages with high unwinding reliability
- Anti-latching for trouble-free unwinding behaviour without entanglements
- Maximised package density
- Individual flank configuration for reduced load on the yarn, and thus less yarn breaks

Increased productivity with PreciFX

The individual control of package density, package diameter and format allows you to increase productivity in warping and weaving. For instance, when using large biconical or conical packages which are filled with additional yarn on the side of the smaller diameter to achieve a particularly high package volume.



Increasing unwinding reliability

The selectable configuration of the flank areas reduces the yarn load at the reversal points. The dreaded yarn and edge breaks in downstream processing occur much less frequently.

Hard packages for knitting: large format, smooth processing

KNITTING

Autoconer X5 process advantages

- > Standard conicity up to 5°57'
- > Large package format
- > Material-adapted constant waxing with Autotense FX

Autoconer X5 – sought-after knitting packages

Produce efficient quality packages for knitting applications with Autoconer X5.

- Conical package format
- Uniform waxing of yarns
- Relatively large package format
- Uniformly wound lengths on packages

For conical package formats 4°20' or 5°57', the Autoconer X5 offers special displacement drums with asymmetric groove geometry.

Material-adapted waxing reduces yarn breaks

Autotense FX allows precise, material-adapted waxing. This reduces yarn breaks caused by excessive load on the yarn and increases efficiency during knitting.

The wax application is controlled by the deflection angle of the yarn in the waxing unit and by the selection of the yarn tension, which you can set centrally at the Informator with Autotense FX. All yarns, whether S- or Z-twisted, are waxed in a perfect and reliable way in the optimal range of the waxing curve.



The sensor integrated in the waxing unit registers when wax must be added and the winding unit display indicates this clearly and unmistakably to your staff. Timely refilling ensures that no unwaxed yarn is wound onto the package.



PreciFX: Precise random wind, precision and step-precision winding

Use the precise control of package density and format to further increase knitting productivity. The three displacement types and individual definition of winding parameters, such as crossing angle or yarn tension in cN, help you to determine the characteristic inner structure of your desired package.

Optimisation of package density and volume

With precision or step-precision winding the density can be specifically adapted to the yarn structure; thus, for instance, you can produce very soft packages that are gentle on the yarn for lightly twisted knitting yarns. The volume can be controlled as well: If you would like more yarn length for your conical packages at limited size of outer diameter, take advantage of the special filling function. This allows you to displace additional yarn in the traverse area of the smaller diameter without exceeding the limiting large package diameter.

PreciFX plus points

PRECI **FX**

- Precise random wind, precision winding / step-precision winding
- Optimisation of package density, adapted to yarn structure
- Infinite format variations
- S-twisted yarn packages without hardware conversion, with improved unwinding properties
- Individual package design for trouble-free unwinding behaviour

Easier production of S-twisted yarn packages with improved unwinding properties

Due to software-controlled yarn displacement and individual parameter selection – crossing angle, flank configuration, conicity and position of crossing points – you can specifically configure the package build for S-twisted yarns and thus achieve larger diameters, even in right-hand winding (i.e. p-winding) for S-twisted yarns. A hardware conversion, as is the case with drum winding, is not necessary. At the same time you can achieve higher unwinding speeds in downstream processing.

Infinite format variations, individual package design

PreciFX allows you to slightly vary the format between $5^{\circ}57'$ and $4^{\circ}20'$. Select the desired conicity via the symmetry factor at the Informator to configure your individual package format with ideal conicity shape. The advantage: maximum efficiency during knitting due to high take-up speeds and correct running behaviour.

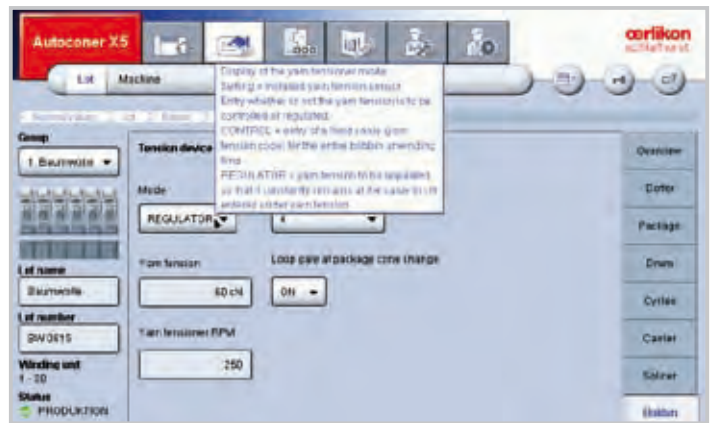


2 Intelligent control and automation

Turning your production more efficient



- > Simple operation at interactive Informator
- > Ergonomic, informative winding unit display
- > Safety concept: Central settings, lockable Informator, individual access and user rights
- > Individual selection of level of automation for feed, yarn clearing, splicer and package doffer X-Change
- > Faster set-up
- > Plug & Wind for fast maintenance and conversion



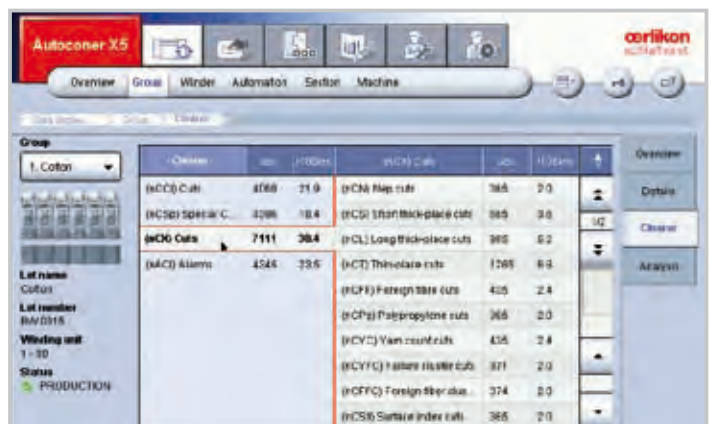
Step-by-step operator guidance with pictures, symbols and user tips

Interactive operator prompting at the Informator

The touchscreen of the Informator guides the user step-by-step through the setting process, in several selectable languages. The clearly laid out interface with images, symbols and input masks is easy to handle.

Central control with integrated safety

The correct setting for all winding units are centrally controlled by you. The Informator can be locked and thus protected against unauthorised changes. Individual access and user rights can be specified for various users. The data and parameter storage on USB stick makes it possible to import the lot data at a later point again or to simply transfer it to other machines.



All parameters visible with clear data tables

Lightning-fast conversion, convenient maintenance

Short conversion times and optimal maintainability pay off every day. Component handling with the Plug & Wind technology could hardly be easier. Central settings, for instance for contact pressure (option), splicer, tensioner and yarn tension, reduce set-up time tremendously and minimise error sources.



In addition to the 30 lots that can be stored in the Informator: external data storage and transfer via USB stick for quality that can be reproduced at any time and quick set-up



The winding unit display communicates in an easy to understand way. Symbols, pictograms and number codes help staff to make a targeted diagnosis

Choose the level of automation that matches your process

Type S

Single creeling

- Manual package feed with single creeling



Automatic package doffing	—
Automatic yarn joint	—
Automatic yarn clearing	—
Feed change mechanism	—
Feed package: Diameter	280 mm
Feed package: Traverse	3" – 10"

Type E

Single creeling

- Manual package feed with single creeling



Automatic package doffing	○
Automatic yarn joint	●
Automatic yarn clearing	●
Feed change mechanism	—
Feed package: Diameter	300 mm
Feed package: Traverse	3" – 10"

Type K

Comfort creeling

- Manual feed of reserve package in ergonomically optimal position
- Automatic change of feed packages with change mechanism



Automatic package doffing	○
Automatic yarn joint	●
Automatic yarn clearing	●
Feed change mechanism	●
Feed package: Diameter	240 mm
Feed package: Traverse	3" – 6"

Type RC

Residual magazine

- Feed of residual packages into large-capacity magazine
- Magazine for 6 or 12 package residues



Automatic package doffing	○
Automatic yarn joint	●
Automatic yarn clearing	●
Feed change mechanism	●
Feed package: Diameter	115 mm (magazine, 12 pockets) 190 mm (magazine, 6 pockets)
Feed package: Traverse	3" – 6"

● Included in delivery ○ Option — Module not available

Intelligent: The clearly arranged display of X-Change also offers convenient support for fast and specific function diagnosis.

X-Change – The intelligent package doffer

The new package doffer offer X-Change minimises or even eliminates manual interferences during package doffing. It offers maximum doffing capacity and flexibility as well as a variety of interesting functional sequences. When changing the package format, the doffer operates entirely independent and processes different tube formats without mechanical settings (teaching mode and multi-tube handling). During winding start of a new lot with feed change, only the new feed material must be fed - then the doffer starts winding automatically. All settings are performed at the Informator in a time-saving manner and without handling effort. (Not available for type S)

Efficient automatic yarn clearing

The electronic yarn clearers check the yarn at each winding unit automatically for interfering imperfections and remove thin and thick places, neps and foreign fibres. Precisely adjustable cleaning criteria eliminate only the errors that actually interfere in downstream processing or in the finished goods without producing unnecessary waste. (Not available for type S)

The graphic representation of the clearing curves facilitates the central setting of yarn clearing at the Informator.

Modular, reliable Oerlikon Schlafhorst splicing and knotting technology

In case of clearer cut, yarn break or feed change, the yarn ends are automatically firmly connected via a spliced or knotted joint. This greatly reduces personnel expenditure and ensures reproducible quality, indistinguishable from the parent yarn. The following applies here as well: simple handling due to central setting. All splicers are based on the pneumatic splicing principle. The individual selection and adjustment is performed according to yarn structure and fibre type. (Not available for type S)

Flexsplicer

Elastosplicer

Injection splicer

Thermosplicer

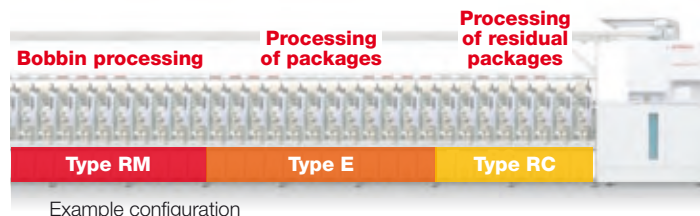
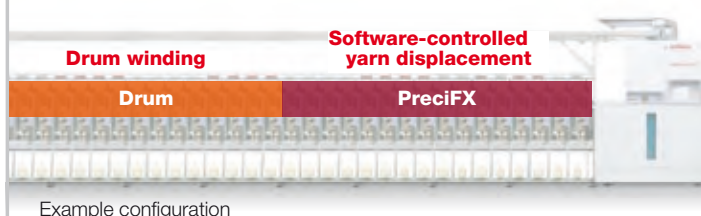
Variable in modular system: the splicer range of Autoconer X5.
Upon request, we also offer automatic knotter units.

3 Individual configuration of functions

Because each day brings new challenges



- > Displacement technology drum or PreciFX, also combinable in one machine
- > Level of automation of feed freely selectable (E, K)
- > Types RM, E, K, RC combinable in sections within a machine
- > X-Change doffer for various formats
- > Selectable equipment variants: Splicer, clearer, waxing unit, FX units
- > Future-proof CAN-bus concept due to retrofitting



Combine equipment variants according to requirements, also in sections.

Drum or PreciFX - today combined, tomorrow retrofitted

Choose drum winding or software controlled yarn displacement PreciFX - both combined in one machine. You can upgrade from drum to PreciFX at any time and integrate additional PreciFX options.

(Drum winding not available for type S)

Level of automation for package feed: Individual selection and combination

Select the suitable level of automation: from manual type S to ergonomic type K with meaningful automation. Types E, K and RC can be combined in sections.

Bobbin processing and package processing in one machine

If you want to rewind only smaller package lots or package residues, you can integrate sections of types E, K and RC for package processing into the bobbin-processing Autoconer X5 RM.

X-Change doffer, the all-rounder

The X-Change doffer automatically processes different package formats - without mechanical adjustments, even if you have to produce cylindrical packages today and conical ones tomorrow.

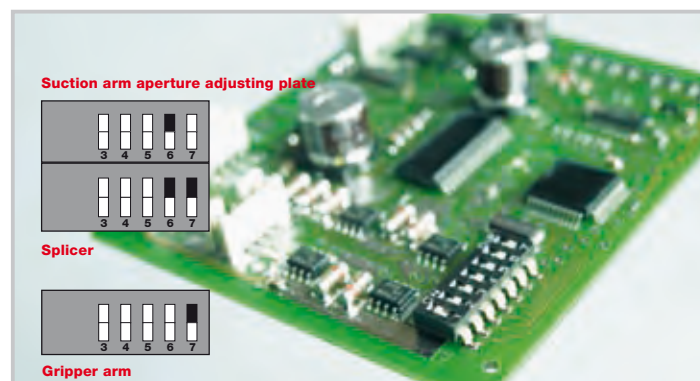


Intelligent networking: Retrofitting expansions, options and future innovations from Oerlikon Schlafhorst is quick and simple.

Technology that the future is based on

With single drives, Plug & Wind technology and a CAN bus concept with virtually unlimited capacity, the Autoconer X5 offers all options for successful textile business. Because a niche application today can already be standard tomorrow. To expand the Autoconer X5 to your requirements will remain fast and economical in the future as well.

Flexible technology: You can switch the multifunction cards between different winding units or machines, or even assign a function to them temporarily for testing purposes. (Just three examples of many)



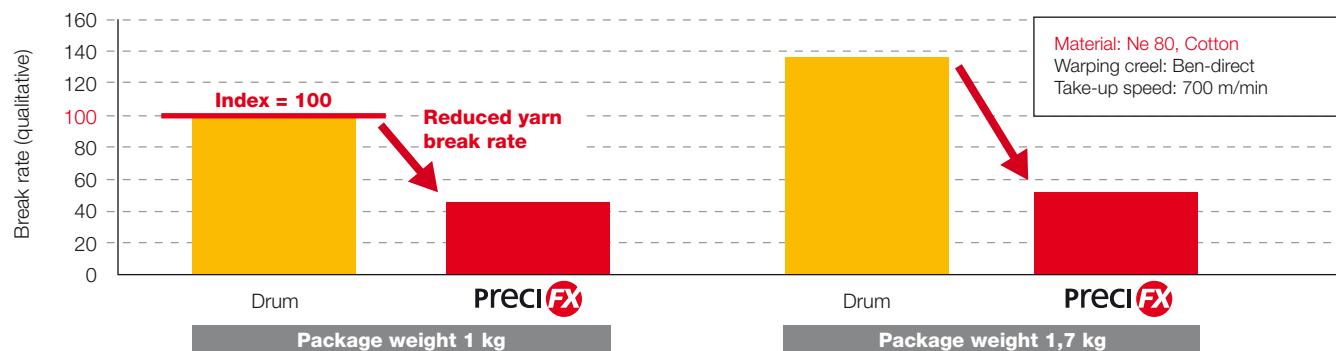
4 **Cost-effective processes**

High productivity, low consumption



- > Increased efficiency due to shortened process
- > Packages with outstanding unwinding properties and high package weight
- > PreciFX with increased displacement frequency
- > Quick set-up with central settings
- > Reduced energy and air consumption due to intelligent suction system
- > Reduced yarn waste due to short piecing cycles, upper and lower yarn sensors, Ecopack FX and Autoconer X5 RC





In the warping creel PreciFX packages unwind with reduced yarn break rates, even at larger diameters

Breaking productivity limits with PreciFX

What is decisive is not maximum speeds but highest efficiency and production volume in terms of time. Optimally adjusted process sequences and parameters help you achieve top values with the Autoconer X5. PreciFX is successful in advancing to new productivity dimensions compared to displacement systems currently in the market.

Productivity advantages in downstream processing

With Autoconer X5 packages you supply your customers also with a productivity plus for downstream processing. Autoconer X5 productivity potentials become evident in higher take-up speeds and cutting down on process steps.

Resource-friendly technology

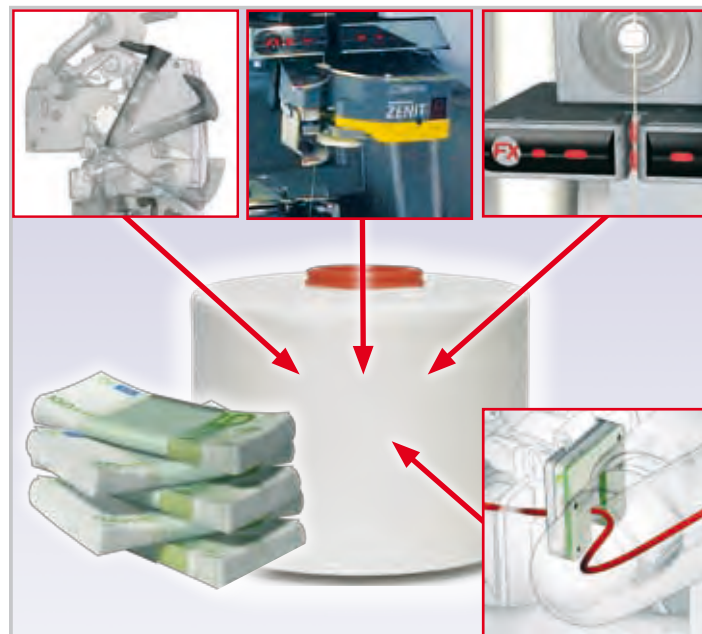
Optimised individual-motor piecing cycles, innovative design, sensor-monitored processes and central interactive user interface save time and personnel with Autoconer X5. The air and energy consumption on types E, K and RC is reduced by the intelligent suction system: It accurately controls negative pressure to the set value. The fan motor speed is continuously adjusted to the conditions, thus creating only the actually required negative pressure.



Reducing yarn waste

Thanks to dynamic piecing cycles, economically smart yarn clearing, sensory monitored upper and lower yarn end pick-up, as well as high-precision length measuring system Ecopack FX, the Autoconer conserves your yarn resources. Package residues produced during warping, weaving and knitting can be converted into large quality packages suitable for further downstream processing, using the Autoconer X5, type RC.

Individual package design with PreciFX can lower transport and process costs.



5 Secure the future with Oerlikon Schlafhorst

Build on the strength of the leading Autoconer X5 package technology

- > Oerlikon Schlafhorst is the only supplier on the market that offers textile-technological competence from fibre to package
- > Since 1962, Autoconer is the name for worldwide leading automatic winding technology
- > Sound advice
- > Highly efficient, individually configurable technology solutions for various operating types and process sequences
- > Reputable service quality worldwide



The textile market has an immense variety of materials and applications. We provide you with customised technology kits for your success.



Profit from worldwide leading winding technology

Autoconer stands for highest technological requirements worldwide. More than two million winding units delivered and more than 125 years of know-how and experience in textile machinery manufacturing speak for themselves. Benefit from our tradition of success.

Oerlikon Schlafhorst stands for more efficiency in the textile process chain

You are looking for powerful high-tech machines for excellent yarn and package quality? Flexible technology that ensures operation at maximum efficiency for many years? Oerlikon Schlafhorst is the only supplier on the market that offers extensive expertise for cross-process solutions – from fibre to package for ring spinning, winding and rotor spinning.

Success in series – since 1962

Rewinding machines from Oerlikon Schlafhorst have been part of successful series production for decades. As early as 1962 the great economic success of the first Autoconer set global standards. The Autoconer continuously responds to textile technological challenges posed by new yarn constructions and increasing requirements by downstream processing with sensational innovations such as modular splicing technology, Autotense FX and PreciFX.

Specialization or standard application – the Autoconer X5 pays off

The enormous flexibility of the Autoconer X5 offers optimal technology for any type of business - for specialized spinning, weaving and dyeing as well as for textile companies with standard applications with the entire focus on productivity.

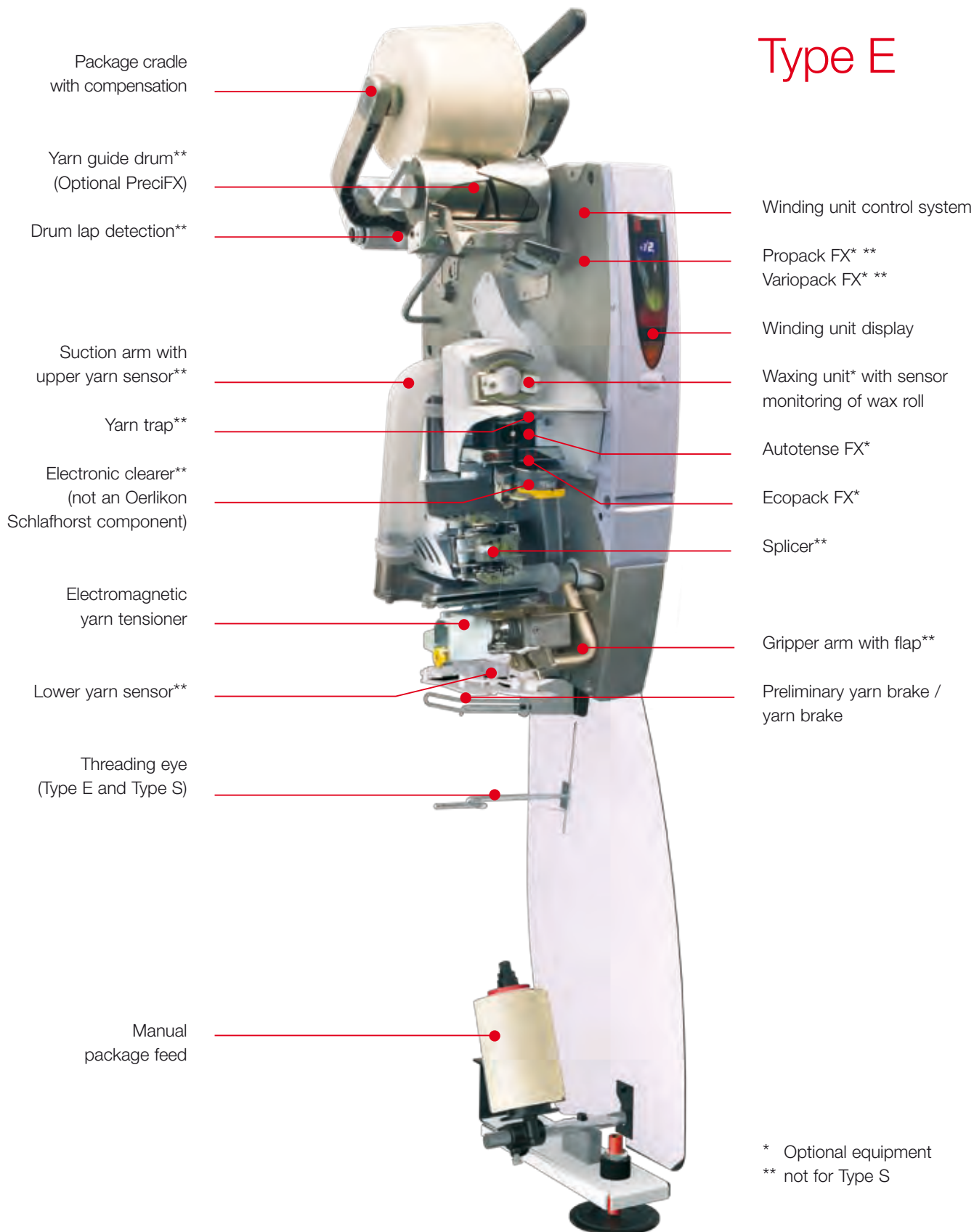
Contact us. We will be happy to advise you on site!

Comprehensive solutions for increased efficiency in your process sequence - from fibre to package.



Technical details

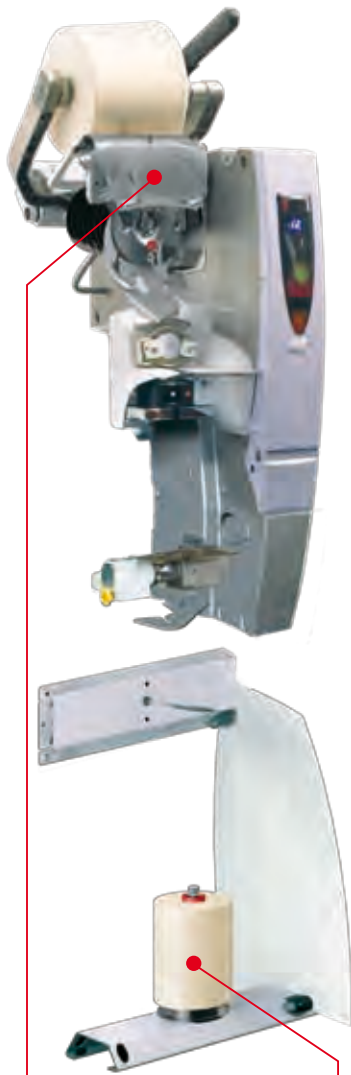
The Autoconer X5 winding unit



* Optional equipment

** not for Type S

Type S



PreciFX
(mandatory for Type S)

Manual package feed

Type K



Automatic package feed
with reserve package

Type RC



Automatic package feed
with package magazine

Autoconer X5 machine concept

Machine concept

Rewinding machines of single spindle type, single-sided longitudinal design. Available as right-hand and left-hand machines.

Spindle gauge

- 320 mm from winding unit to winding unit (type E, K, S)
- 640 mm from winding unit to winding unit (type RC)

Materials processed

Single and plied yarns of natural and manmade staple fibres. A winding test may be required in some cases.

Yarn count ranges

- 333 tex to 5.9 tex (Nm 3 to Nm 170; Ne 2 to Ne 100)
- Winding test required for coarser or finer yarns.

Package formats

- 83 mm (3") traverse, cylindrical to 4°20'
- 108 mm (4") traverse, cylindrical to 4°20'
- 125 mm (5") traverse, cylindrical to 4°20'
- 150 mm (6") traverse, cylindrical to 5°57', optionally with increasing taper to 11°

Package diameter

- Max. 320 mm, from cylindrical to 5°57' tubes.
- Max. 300 mm, for 5°57' tubes with additional taper to 11°.
- Emergency stop at 326 mm.

Package tubes

- Cylindrical and tapered, according to DIN standards, depending on machine type.

Winding speed

- Infinitely adjustable from 300 to 2,000 m/min, depending on yarn type, feed package and machine specification.

Acoustic emission

- Acoustic emission data satisfy the international standard EN ISO9002-4.

Installed power

- Depending on number of winding units and equipment.

Networks

- Power and compressed air are supplied from customer's networks and fed to the machine from above or from below, into the control cabinet.

Vacuum

(not for type S)

- Vacuum generated on each Autoconer by the suction system for: Suction tube, gripper arm, yarn trap, magazine valve and travelling cleaner disposal. Discharge of hot exhaust air from Autoconer upward or downward:
- into the open air
- into an air conditioning system.

Control cabinet

- Contains power supply, main switch, operating hour meter and the switchgear for the entire Autoconer.
- Contains connection to customer's compressed air system, water separator, pressure monitor for monitoring the inlet pressure, solenoid valve for switching off functions operated using compressed air if the pressure drops below 6.5 bar, and pressure regulator.

Information systems

- Lockable Informator with touchscreen, central setting options and USB interface for data storage and transfer
- Interface to external computer systems
- Clearer integration and extended central setting options for type E, K, RC a.o. for:
- Splicer feeder
- Suction tube

Equipment options feed

	Type E	Type K	Type RC	Type S
Performance characteristic				
Feed package	Packages	Packages	Package residues	Packages
Feed package: Diameter	300 mm	240 mm	115 mm (magazine, 12 pockets) 190 mm (magazine, 6 pockets)	280 mm
Feed package: Traverse	3" – 10"	3" – 6"	3" – 6"	3" – 10"
Creeling	Manually, single creeling	Manually, convenient with reserve package	Manually into circular magazine (6 or 12 pockets)	Manually, single creeling
Feed change	Manually	Change mechanism	Change mechanism	Manually
Maximum number of spindles per section	10	10	5	10
Sectional combination	With RM, K, RC	With RM, E, RC	With RM, E, RC	No

Equipment options winding unit

	Type E	Type K	Type RC	Type S
Winding unit, winding unit control system, units in the yarn path				
Yarn guide drum with direct drive for winding speeds of 300 to 2,000 m/min	●	●	●	—
Cradle compensation	●	●	●	●
Package brake and lift-off after yarn break or package idling	●	●	●	●
Self-optimizing smooth start-up	●	●	●	●
Electronic length measurement and package diameter computation	●	●	●	●
Quality Cut power failure circuit	●	●	●	○
Electronically controlled anti-patterning system	●	●	●	—
Quality Guard sensor	○	○	○	●
Additional taper	○	○	○	○
Lateral displacement dye packages (not necessary with PreciFX)	○	○	○	—
Waxing, incl. wax roll monitoring	○	○	○	○
Upper yarn sensor	●	●	●	—
Yarn trap	●	●	●	—
Electromagnetic yarn tensioner, central setting	●	●	●	●
Lower yarn sensor	●	●	●	—
Adjustable pre-cleaner	●	●	●	●
1:1 winding, peeling	—	○	—	—
Cut-clamp device	—	—	—	○
FX series				
Autotense FX yarn tension control system	○	○	○	○
Propack FX incl. Variopack FX (not necessary with PreciFX)	○	○	○	—
Ecopack FX precision length measuring system	○	○	○	○
PreciFX Start	○	○	○	●
PreciFX Plus	○	○	○	○
PreciFX Expert	○	○	○	○
Automatic yarn joining				
Flexsplicer	●	●	●	—
Injection splicer	○	○	○	—
Thermosplicer	○	○	○	—
Elastosplicer	○	○	○	—
Automatic electronic yarn clearing				
Standard clearer (not a Oerlikon Schlafhorst component)	●	●	●	—
Higher-quality clearer (not a Oerlikon Schlafhorst component)	○	○	○	—

● Basic equipment ○ Option — Not available

Equipment options machine

	Type E	Type K	Type RC	Type S
Cleaning the machine				
Multi-jet per winding unit	●	●	●	●
Autoconer standard travelling cleaner	●	●	●	●
Joint collecting chamber for yarn waste and dust	●	●	●	—
Separate chambers for yarn waste and dust	○	○	○	—
Package doffing and removal				
Package doffer X-Change	○	○	○	—
Deposit tray for full packages	●	●	●	●
Package conveyor belt	○	○	○	—
Interface to package removal	○	○	○	—
Information systems				
Informator with graphic user interface via touchscreen and USB interface	●	●	●	●
Informator interface for connection to computer system	●	●	●	●
Power unit				
Supply with power and compressed air	●	●	●	●
Suction system with vacuum control (AVC)	●	●	●	—

● Basic equipment ○ Option — Not available

Equipment options displacement technology

	PreciFX Start	PreciFX Plus	PreciFX Expert
Performance characteristics			
Precise random wind	●	●	●
Step-precision winding	—	—	●
Precision winding	—	—	●
Main number of groove turns (analogous to drum)	●	●	●
Intermediate number of groove turns	—	●	●
Expansion of groove turn range	—	●	●
Package format cylindrical	●	●	●
Package format tapered to 5°57'	●	●	●
Traverse 6"	●	●	●
Traverse 3" – 5"	—	●	●
Central contact pressure setting	—	●	●
Traverse variation over the diameter	—	●	●

● Basic equipment ○ Option — Not available



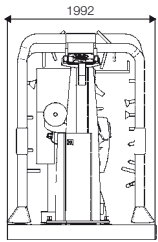
Oerlikon Schlafhorst's quality management system complies with the requirements of EN ISO 9001.

About this brochure

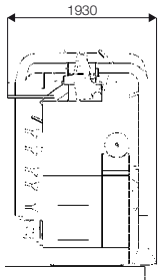
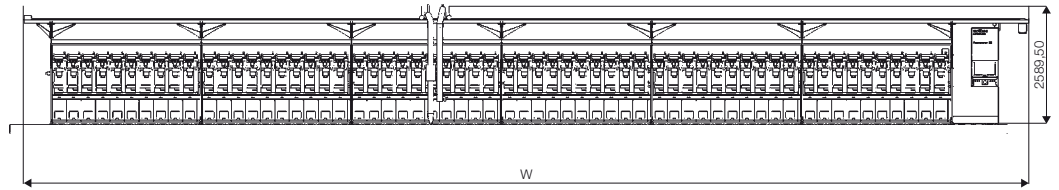
Research and development will never come to a halt. This may mean that some statements about the Autoconer rewinding machine are rendered obsolete by technical progress. The illustrations are selected for informative perspectives only. They may contain extras which are not standard.

Pictures

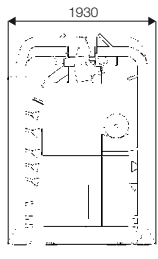
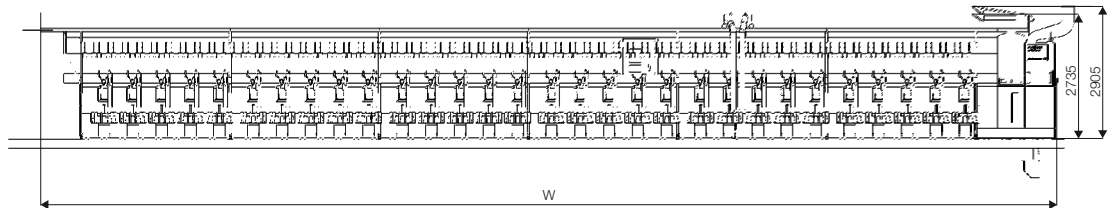
Weaving mill: ITEMA (Switzerland) Ltd.
Warping mill: KARL MAYER Textilmaschinen AG
Dye shop: Thies GmbH & Co. KG, Obem S.p.A. Dyeing and Steaming machinery, Loris Bellini S.p.A.
Knitting mill: Mayer & Cie. GmbH & Co. KG



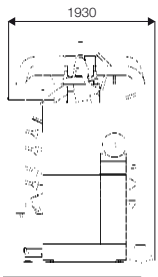
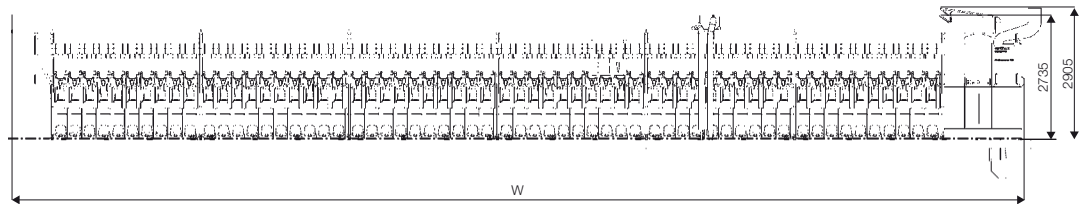
Autoconer X5, Type S.



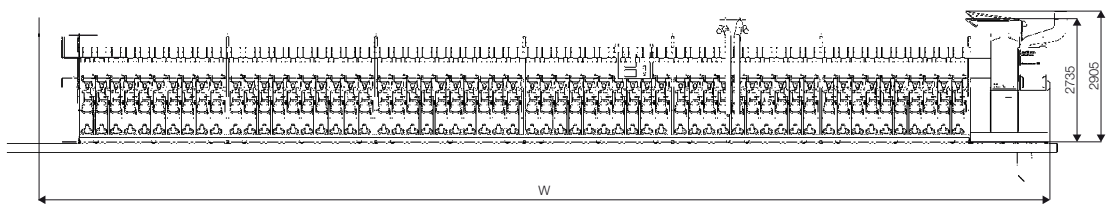
Autoconer X5, Type RC.



Autoconer X5, Type E.



Autoconer X5, Type K.



Machine dimensions, Autoconer X5 S

Winding units	10	20	30	40	50	60
W-dimension (mm)	5.600	8.910	12.220	15.530	18.840	22.150

Machine dimensions, Autoconer X5 RC

Winding units	5	10	15	20	25	30
W-dimension (mm)	6.317	9.627	12.937	16.247	19.557	22.867

Machine dimensions, Autoconer X5 E, K

Winding units	10	20	30	40	50	60
W-dimension (mm)	6.317	9.627	12.937	16.247	19.557	22.867

Oerlikon Schlafhorst

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